

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference <b>PC3-073</b>	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. <b>PCT/US2005/003429</b>	International filing date ( <i>day/month/year</i> ) <b>28 January 2005 (28.01.2005)</b>	Priority date ( <i>day/month/year</i> ) <b>30 January 2004 (30.01.2004)</b>
International Patent Classification (8th edition unless older edition indicated) <b>See relevant information in Form PCT/ISA/237</b>		
Applicant <b>GREAT LAKES CHEMICAL CORPORATION</b>		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	This REPORT consists of a total of 5 sheets, including this cover sheet.																								
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																									
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report <b>31 July 2006 (31.07.2006)</b>
Facsimile No. +41 22 338 82 70	Authorized officer <b>Yolaine Cussac</b>
e-mail: pt11@wipo.int	

Form PCT/IB/373 (January 2004)

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# PATENT COOPERATION TREATY

REC'D 21 NOV 2005

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# PCT

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
ROBERT C. HYTA  
WELLS ST. JOHN, P.S.  
601 WEST FIRST STREET  
SUITE 1300  
SPOKANE, WA 99201-3828

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) **16 NOV 2005**

Applicant's or agent's file reference

**FOR FURTHER ACTION**  
See paragraph 2 below

PC3-073

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US05/03429

28 January 2005 (28.01.2005)

30 January 2004 (30.01.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): and US Cl.:

Applicant

PCBU SERVICES INC.

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

**LANSANA NYALLEY**

Telephone No. 571-272-0697

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US05/03429

**Box No. I Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/03429

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>Please See Continuation Sheet</u>	YES
	Claims <u>Please See Continuation Sheet</u>	NO
Inventive step (IS)	Claims <u>Please See Continuation Sheet</u>	YES
	Claims <u>Please See Continuation Sheet</u>	NO
Industrial applicability (IA)	Claims <u>Please See Continuation Sheet</u>	YES
	Claims <u>Please See Continuation Sheet</u>	NO

2. Citations and explanations:

Claims 1-17, 25-340, 44-71, 115-121, 126-134, 136-140, 144-145 and 153-156 lack inventive steps under PCT Article 33(3) as being obvious over Sekiya et. al. (US patent 5,847,243) in combination with Fernandez et. al. (US 5,045,634) further in view of Sakyu et. al. (US 6,235,951 B1); Hideo (Journal of Fluorine Chemistry, 121, 2003, 111-130) and Hideo et. al. (Journal of Fluorine Chemistry, 79, 1996, 149-155)  
Applicants recites a production process comprising halogenating an alkyl reactan with a halogenating agent within a reactor to form a halogenated compound Th

Skiya et. al. (US patent 5,847,243) and Fernandez et. al. (US patent 5,045,634) teach aprocess of halogenating an alkyl reactant with a halogenating agent within a reactor to form a halogenated compound.

The difference between Skiya et. al. and the claims of the instant application is that the reactor of the instant application requires glass wall whereas Skiya et. al. is silent on whether the reactor has a glass wall or not.

Additionally, the claims of the instant application recites potassium fluoride and iodine as the halogenating, whereas Skiya et. al. teach hydrogen fluoride and iodine as the reducing agent.

Potassium iodide is more ionic and easier to break and release the iodide for ion to react than the iodide ion from hydrogen iodide. Further more, using a reactor with an interior glass wall makes it easier and less expensive to clean the reactor at the end of a reaction.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have been motivated to substituted potassium iodide for hydrogen iodide or a reactor with an interior glass wall for any other reactor. One would have been motivated to do so in order to increase the yield and to save the cost of cleaning the reactor at the end of a reaction.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/03429

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

V.1. Reasoned Statements:

The opinion as to Novelty was positive (Yes) with respect to claims 18-24, 41-43, 72-80, 100, 102, 106-114, 122-125, 135, 141-143, 146-152, 157-167 and 198

The opinion as to Novelty was negative (No) with respect to claims NONE

The opinion as to Inventive Step was positive (Yes) with respect to claims NONE

The opinion as to Inventive Step was negative (NO) with respect to claims NONE

The opinion as to Industrial Applicability was positive (YES) with respect to claims NONE

The opinion as to Industrial Applicability was negative (NO) with respect to claims NONE

↑  
Let's discuss this.